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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,531	09/26/2003	Wayne Castleberry	X-9425	6510

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EXAMINER	
GELLNER, JEFFREY L	

ART UNIT	PAPER NUMBER
3643	

DATE MAILED: 04/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/670,531	CASTLEBERRY, WAYNE	
	Examiner	Art Unit	
	Jeffrey L. Gellner	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23,25 and 26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23,25 and 26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Upon reconsideration of the claim language and the prior art finality is withdrawn. A rejection of the claims using new art follows. Examiner regrets any inconvenience to Applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hann et al. (US 6,479,433 B1) in view of Garrett (US 5,617,672) in further view of Univ. of Fla.

As to Claims 1-5, Hann discloses a horticultural growing medium (abstract) comprising a flexible diphenylmethane diisocyanate foam material (col. 4 lines 20-29), the horticultural medium being capable of supporting plant growth (abstract). Not disclosed is the foam without filler and having a CEC of from 1.0 to 1.5. Garrett, however, discloses the use of a foam without filler to grow plants (col. 7 lines 58-65); Univ. of Fla. discloses a CEC of approximately 1.0. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the medium of Hann et al. by having the medium without filler as disclosed by Garrett so that the medium could be used for hydroponics (see Garrett col. 7 lines 58-65) so as to increase the use of the foam and to have the CEC of the foam to be from 1 to 1.5 as disclosed by Univ. of Fla. depending upon the desired type of soil or medium to be emulated.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hann et al. (US 6,479,433 B1) in view of Garrett (US 5,617,672) and Univ. of Fla. in further view of Buckman and Brady.

As to claim 6, the limitations of claim 1 are disclosed as described above. Not disclosed is the pH of the medium being from 6.8 to 7.8. Buckman and Brady at pages 36-37 disclose that soils that accommodate the growth of plants can have a pH from 5 to 9. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the medium of Hann et al. as modified by Garrett and Univ. of Fla. by having the pH from 6.8 to 7.8 as disclosed by Buckman and Brady depending upon the type of soil to be emulated.

As to claim 7, the limitations of claim 1 are disclosed as described above. Not disclosed is the foam highly porous with a 60 to 40 air to water ratio. Buckman and Brady disclose at pages 9-10 that soil can have variation in the ratio of air to water. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the medium of Hann et al. as modified by Garrett and Univ. of Fla. by having the ratio of air to water to be 60 to 40 as disclosed by Buckamn and Brady depending upon the use of the medium (for example, the type of plants grown) and the type of soil to be emulated.

Claims 8-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hann et al. (US 6,479,433 B1) in view of Garrett (US 5,617,672) and Univ. of Fla. in further view of Cook.

As to claims 8-11 and 13, the limitations of claim 1 are disclosed as described above. Not disclosed is the pore size being from 0.2 to 800 micron at various percentages. Cook, however, discloses that pore size in soil can range from 1500 microns to 1.5 microns. It would

have been obvious to one of ordinary skill in the art at the time of the invention to further modify the medium of Hann et al. as modified by Garrett by and Univ. of Fla. having the size of pores from 0.2 to 800 micron at various percentages as disclosed by Cook depending upon the use of the medium (for example, the type of plants grown) and the type of soil to be emulated.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hann et al. (US 6,479,433 B1) in view of Garrett (US 5,617,672) and Univ. of Fla. in further view of Decker (US 5,899,020).

As to claim 12, the limitations of claim 1 are disclosed as described above. Not disclosed is the material being sterile. Decker, however, discloses a medium being sterile (col. 3 lines 18-22). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the medium of Hann et al. as modified by Garrett and Univ. of Fla. by having the medium being sterile as disclosed by Decker so that any plants will be less subject to contamination (see Decker at col. 3 lines 18-23).

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hann et al. (US 6,479,433 B1) in view of Garrett (US 5,617,672) and Univ. of Fla. in further view of Caron et al. (US 6,178,691 B1).

As to claims 14, 15, the limitations of claim 1 are disclosed as described above. Not disclosed is the material having a porosity from 85 to 95% or 90 to 92%. Caron et al., however, discloses a medium having a porosity of 85% or greater (col. 7 lines 52-57). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the

medium of Hann et al. as modified by Garrett and Univ. of Fla. by having a medium with a porosity from 85 to 95% as disclosed by Caron et al. so as to be maintained in a water saturated state (see Caron et al. at col. 6 lines 63-67) so as to ensure water to the plant or 90 to 92% so as to be maintained in a water saturated state so as to ensure water to the plant.

Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hann et al. (US 6,479,433 B1) in view of Garrett (US 5,617,672) in further view of Cook; Univ. of Fla; and, Caron et al. (US 6,178,691 B1).

As to Claims 16-19, Hann discloses a horticultural growing medium (abstract) comprising a flexible diphenylmethane diisocyanate foam material (col. 4 lines 20-29 and table II of cols. 9 and 10), the horticultural medium being capable of supporting plant growth (abstract). Not disclosed is the foam without filler; at least 50% pores with pores sized 10 to 200 microns; having a CEC of from 1.0 to 1.5.; and, having a porosity ranging from 85% to 95%. Garrett, however, discloses the use of a foam without filler to grow plants (col. 7 lines 58-65); Cook discloses that pore size in soil can range from 1500 microns to 1.5 microns at various percentages depending upon soil texture; Univ. of Fla. discloses a CEC of approximately 1.0; and, Caron et al. discloses a medium having a porosity of 85% or greater (col. 7 lines 52-57). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the medium of Hann et al. by having the medium without filler as disclosed by Garrett so that the medium could be used for hydroponic (see Garrett col. 7 lines 58-65) so as to increase the use of the foam and to have the CEC of the foam to be from 1 to 1.5 as disclosed by Univ. of Fla. depending upon the desired soil type to be emulated, having the size of pores from 0.2 to 800

micron at various percentages as disclosed by Cook depending upon the use of the medium (for example, the type of plants grown) and the type of soil to be emulated, and having a medium with a porosity from 85 to 95% as disclosed by Caron et al. so as to be maintained in a water saturated state (see Caron et al. at col. 6 lines 63-67) so as to ensure water to the plant.

Claims 20-23, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hann et al. (US 6,479,433 B1) in view of Garrett (US 5,617,672) in further view of Cook; Univ. of Fla; and, Caron et al. (US 6,178,691 B1).

As to Claims 20, 23, 25, and 26, Hann discloses a horticultural growing medium (abstract) comprising a flexible diphenylmethane diisocyanate foam material (col. 4 lines 20-29 and Table II of cols. 9 and 10), the horticultural medium being capable of supporting plant growth (abstract). Not disclosed is the foam without filler; at least 50% pores with pores sized 10 to 200 microns; having a CEC of from 1.0 to 1.5.; and, having a porosity ranging from 92% to 95%. Garrett, however, discloses the use of a foam without filler to grow plants (col. 7 lines 58-65); Cook discloses that pore size in soil can range from 1500 microns to 1.5 microns at various percentages depending upon soil texture; Univ. of Fla. discloses a CEC of approximately 1.0; and, Caron et al. discloses a medium having a porosity of 85% or greater (col. 7 lines 52-57). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the medium of Hann et al. by having the medium without filler as disclosed by Garrett so that the medium could be used for hydroponic (see Garrett col. 7 lines 58-65) so as to increase the use of the foam and to have the CEC of the foam to be from 1 to 1.5 as disclosed by Univ. of Fla. depending upon the desired soil type to be emulated, having the size of pores from 0.2 to 800

micron at various percentages as disclosed by Cook depending upon the use of the medium (for example, the type of plants grown) and the type of soil to be emulated, and having a medium with a porosity from 92% to 95% by modifying Caron et al. so as to be maintained in a water saturated state (see Caron et al. at col. 6 lines 63-67) so as to ensure water to the plant.

As to claim 21, the limitations of claim 20 are disclosed as described above. Not disclosed is the material being a sheet with a seed attached. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the medium of Hann et al. as modified by Garrett, Cook, Univ. of Fla, and, Caron et al. by making into a sheet with a seed attached so as to use in outdoor planting environments.

As to claim 22, Hann et al. as modified by Garrett, Cook, Univ. of Fla, and, Caron et al. further disclose a block with an aperture (Fig. 4 of Hann et al.).

Response to Arguments

Applicant's arguments with respect to claims 1-23, 25, and 26 have been considered but are moot in view of the new ground(s) of rejection.

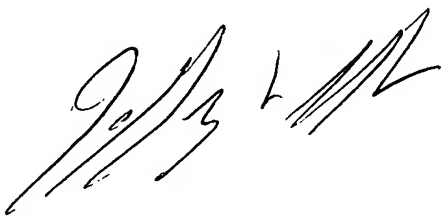
Conclusion

Again, Examiner regrets any inconvenience to Applicant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Gellner whose telephone number is 571.272.6887. The examiner can normally be reached on Monday-Friday, 8:30-4:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on 571.272.6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrey L. Gellner
Primary Examiner
Art Unit 3643